

**What Is Claimed Is:**

1           1.       A method for optimizing content delivery on a network,  
2 comprising:  
3           receiving content at a first client;  
4           receiving a broadcast request for the content from a second client on a  
5 local subnet;  
6           sending a broadcast response to the local subnet, wherein the broadcast  
7 response identifies a multicast address to which the first client will deliver the  
8 content; and  
9           delivering the content to the multicast address so that the second client and  
10 any other interested clients on the local subnet can receive the content.

1           2.       The method of claim 1, wherein receiving the content at the first  
2 client further comprises:  
3           sending a first broadcast to the local subnet requesting the content;  
4           if a response to the first broadcast is received, receiving the content via a  
5 multicast transmission from another client on the local subnet; and  
6           if a response to the first broadcast is not received, receiving the content via  
7 a unicast transmission from a source outside of the local subnet.

1           3.       The method of claim 2, wherein if the first client receives the  
2 content via the unicast transmission, the method further comprises sending a  
3 second broadcast to the local subnet announcing that the first client is receiving  
4 the content, thereby allowing other clients on the local subnet to request to receive  
5 the content from the first client.

1           4.       The method of claim 3, wherein the second broadcast contains  
2 information about the content, including subscription information, whereby other  
3 clients can determine if they have a subscription to receive the content and should  
4 therefore request to receive the content.

1           5.       The method of claim 3, wherein the first client sends the second  
2 broadcast to the local subnet prior to receiving all of the content, whereby the first  
3 client can start transferring the content to other clients on the local subnet via  
4 multicast prior to receiving all of the content.

1           6.       The method of claim 1, further comprising:  
2           receiving a broadcast message at the first client from another client on the  
3 local subnet announcing that the other client is transmitting another item of  
4 content, and including a second multicast address for delivery of the other item of  
5 content;  
6           determining if the first client needs the other content; and  
7           if so, receiving the other content at the first client via the second multicast  
8 address.

1           7.       The method of claim 1, wherein the network is a shared-carrier  
2 network.

1           8.       The method of claim 7, wherein the network is a wireless network.

1           9.       The method of claim 8, wherein the network adheres to the  
2 802.11x protocols.

1           10.     The method of claim 1, wherein the second client starts receiving  
2     the multicast of the content while the multicast is already in progress.

1           11.     A computer-readable storage medium storing instructions that  
2     when executed by a computer cause the computer to perform a method for  
3     optimizing content delivery on a network, the method comprising:  
4         receiving content at a first client;  
5         receiving a broadcast request for the content from a second client on a  
6     local subnet;  
7         sending a broadcast response to the local subnet, wherein the broadcast  
8     response identifies a multicast address to which the first client will deliver the  
9     content; and  
10        delivering the content to the multicast address so that the second client and  
11     any other interested clients on the local subnet can receive the content.

1           12.     The computer-readable storage medium of claim 11, wherein  
2     receiving the content at the first client further comprises:  
3         sending a first broadcast to the local subnet requesting the content;  
4         if a response to the first broadcast is received, receiving the content via a  
5     multicast transmission from another client on the local subnet; and  
6         if a response to the first broadcast is not received, receiving the content via  
7     a unicast transmission from a source outside of the local subnet.

1           13.     The computer-readable storage medium of claim 12, wherein if the  
2     first client receives the content via the unicast transmission, the method further  
3     comprises sending a second broadcast to the local subnet announcing that the first

4 client is receiving the content, thereby allowing other clients on the local subnet to  
5 request to receive the content from the first client.

1 14. The computer-readable storage medium of claim 13, wherein the  
2 second broadcast contains information about the content, including subscription  
3 information, whereby other clients can determine if they have a subscription to  
4 receive the content and should therefore request to receive the content.

1 15. The computer-readable storage medium of claim 13, wherein the  
2 first client sends the second broadcast to the local subnet prior to receiving all of  
3 the content, whereby the first client can start transferring the content to other  
4 clients on the local subnet via multicast prior to receiving all of the content.

1 16. The computer-readable storage medium of claim 11, wherein the  
2 method further comprises:  
3 receiving a broadcast message at the first client from another client on the  
4 local subnet announcing that the other client is transmitting another item of  
5 content, and including a second multicast address for delivery of the other content;  
6 determining if the first client needs the other item of content; and  
7 if so, receiving the other content at the first client via the second multicast  
8 address.

1 17. The computer-readable storage medium of claim 11, wherein the  
2 network is a shared-carrier network.

1 18. The computer-readable storage medium of claim 17, wherein the  
2 network is a wireless network.

1           19.     The computer-readable storage medium of claim 18, wherein the  
2 network adheres to the 802.11x protocols.

1           20.     The computer-readable storage medium of claim 11, wherein the  
2 second client starts receiving the multicast of the content while the multicast is  
3 already in progress.

1           21.     An apparatus for optimizing content delivery on a network,  
2 comprising:  
3           a content receiving mechanism that is configured to receive content at a  
4 first client;  
5           a request receiving mechanism configured to receive a broadcast request  
6 for the content from a second client on a local subnet;  
7           a response mechanism configured to send a broadcast response to the local  
8 subnet, wherein the broadcast response identifies a multicast address to which the  
9 first client will deliver the content; and  
10          a delivery mechanism configured to deliver the content to the multicast  
11 address so that the second client and any other interested clients on the local  
12 subnet can receive the content.

1           22.     The apparatus of claim 21, wherein the content receiving  
2 mechanism is further configured to:  
3           send a first broadcast to the local subnet requesting the content;  
4           receive the content via a multicast transmission from another client on the  
5 local subnet, if a response to the first broadcast is received; and

6 receive the content via a unicast transmission from a source outside of the  
7 local subnet, if a response to the first broadcast is not received.

1 23. The apparatus of claim 22, further comprising an announcement  
2 mechanism configured to send a second broadcast to the local subnet announcing  
3 that the first client is receiving the content if the first client receives the content  
4 via the unicast transmission, thereby allowing other clients on the local subnet to  
5 request to receive the content from the first client.

1 24. The apparatus of claim 23, wherein the second broadcast contains  
2 information about the content, including subscription information, whereby other  
3 clients can determine if they have a subscription to receive the content and should  
4 therefore request to receive the content.

1 25. The apparatus of claim 23, wherein the announcement mechanism  
2 is further configured to send the second broadcast to the local subnet prior to the  
3 receiving mechanism receiving all of the content, whereby the delivery  
4 mechanism can start transferring the content to other clients on the local subnet  
5 via multicast prior to the receiving mechanism receiving all of the content.

1 26. The apparatus of claim 21, further comprising:  
2 a receiving mechanism configured to receive a broadcast message at the  
3 first client from another client on the local subnet announcing that the other client  
4 is transmitting another item of content, and including a second multicast address  
5 for delivery of the other item of content;  
6 a determination mechanism configured to determine if the first client  
7 needs the other content; and

8           a second content receiving mechanism configured to receive the other  
9   content at the first client via the second multicast address if the first client needs  
10   the other content.

1           27.    The apparatus of claim 21, wherein the network is a shared-carrier  
2   network.

1           28.    The apparatus of claim 27, wherein the network is a wireless  
2   network.

1           29.    The apparatus of claim 28, wherein the network adheres to the  
2   802.11x protocols.

1           30.    The apparatus of claim 1, wherein the second client starts receiving  
2   the multicast of the content while the multicast is already in progress.